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 TI Reinforcing mortar composition for preventing water leakage and rock fall  
 in tunnel construction and method for constructing the same  
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 PA Hanil Cement Co., Ltd., S. Korea  
 SO Repub. Korean Kongkae Taeho Kongbo, No pp. given  
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 DT Patent  
 LA Korean  
 IC ICM C04B014-04  
 CC 58-3 (Cement, Concrete, and Related Building Materials)  
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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2001053808	A	20010702	KR 1999-54321	19991201
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CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
KR 2001053808	ICM	C04B014-04

AB A reinforcing mortar composition for preventing a water leakage and rock fall  
 in tunnel construction is provided, which improves compression strength  
 and bending strength and has excellent adhesion and generates little amount  
 of rebound, and a method for constructing the same is also provided, which  
 prevents generation of dust particles and increases tunnel boring speed  
 and working stability. The reinforcing mortar composition comprises: (i)  
 30-35% of cement; (ii) 28-33% of sand(S1) having a particle size  
 of not more than 0.6 mm; (iii) 25-28% of sand(S2) having a particle size  
 of more than 0.6 mm and not less than 2.4 mm; (iv) 5-10% of fly ash; (v)  
 0.1-5% of high strength mixing agent; (vi) 0.1-0.65% of super  
plasticizer; (vii) 0.004-0.007% of Me cellulose; and  
 (viii) aluminate accelerator. The method comprises steps of: (i) stirring  
 the reinforcing mortar composition in a mixer; and (ii) pumping the stirred  
 composition of the step (i) with a rotor starter where the composition is  
 sprayed on  
 the inside of the tunnel by the accelerator and compressed air being  
 connected to a pumping nozzle.

ST reinforcing mortar compn tunnel water leakage rock fall prevention

IT Ashes (residues)

(fly; reinforcing mortar composition for preventing water leakage and rock  
 fall in tunnel construction and method for constructing the same)

IT **Cement**  
 Concrete  
 Mortar